

The Examiner asserts that Smollett discloses a cryostorage device (insulated outside walls 22), a data storage device (relay 69), a receptacle device (duct 77) and a sample chamber (coil 82) as recited in the claims. The Examiner's assertions are respectfully traversed, at least because Smollett does not disclose or teach the following features recited in the independent Claims 1, 12 and 20:

- a. a data storage adapted to store a plurality of data;
- b. a sample chamber being directly attached to the data storage device; and
- c. the sample chamber being (directly) attached to the data storage device in a flexible and movably hanging manner.

Regarding the claimed data storage adapted to store a plurality of data, the Examiner considers the relay 69 as the data storage, assertively "because it works on a plurality of switches 66 and 63". However, Smollett clearly discloses that the relay 69 does not work on a plurality of switches 66 and 63. In fact, the transfer of any data through the relay is in one direction only, that is, from the switch 66 to the solenoid 63. As set forth at column 3, lines 36-39 of Smollett, the solenoid 63 is actuated by the electrical relay 69 in response to electric current conducted from the thermal regulator 66 by the electric cable 68. The relay 69 does not accept data from the solenoid 63. The relay 69 relied upon by the Examiner is a one-way electromechanical switch.

During a previous interview with the Examiner, the Examiner agreed that the relay 69 is simply an electrical switch that opens and closes under the control of the thermal regulator 66 to cause the solenoid 63 to change the position of the valve 60. The transfer of any data is thus one way, that is, in one direction from the switch 66 to a solenoid 63 via the relay 69. Accordingly,

the relay 69 of Smollett does not represent a data storage as recited in the independent claims.

Regarding the claimed sample chamber being directly attached to the data storage device, the Examiner asserts that the chamber 15 of Smollett is directly attached with the duct 82, and that the data storage chamber 69 is directly attached with the chamber 15. From this the Examiner asserts that Smollett either anticipates or obviously teaches the data storage 69 being directly attached with the chamber 15 or the duct 82. The Examiner's assertions are respectfully traversed.

By the Examiner's own statement, the relay 69 and duct cable 82 are not directly attached, because there are intermediate connections required between the relay and duct cable. Further, a person of ordinary skill in the art would readily have understood that it would not make any technical sense to directly attach the relay 69 (assuming, *en arguendo*, that the relay 69 could represent a data storage) to the sample chamber. The relay 69 is connected to electric leads 68, which are connected to the thermal regulator switch 66, which is attached to the outside wall 22 through which the duct cable 82 extends. Without these intermediate components, operating the relay 69 would not make sense. In fact, Smollett teaches away from a direct attachment feature of the recited claims. Therefore, the direct attachment of the relay 69 to the sample chamber could not have been suggested by the Smollett reference.

In the rejection, the Examiner also asserts that the duct cable 82 of Smollett is connected to the relay 69 through fluid contained in the fluid chamber 15. Applicants note that in the Examiner's written rejection, the Examiner still does not expressly discuss the feature of direct attachment, but merely cuts and pastes from prior rejections that also do not expressly discuss the direct attachment feature. Accordingly, the Examiner continues the assertion that the duct cable

82 is connected to the relay 69 through thermostatic fluid contained in the chamber 15. Since the claimed term “directly attached” would have been understood by a person of ordinary skill in the art to mean a fixed connection between both parts without intermediate connections, the relay 69 and duct cable 82 are clearly not directly attached. The Examiner has identified the electric leads 68 as a direct attachment to the relay 69. However, the electric leads 68 connect the switch 66 to the relay 69 only. The fluid referred to by the Examiner as an attachment from the duct cable 82 to the relay 69 is an atmospheric environment chilled with dry ice and incapable of providing a direct attachment as claimed because the thermostatic fluid is not even an intervening connector there between. The relay 69 and duct cable 82 are not attached to each other without intermediate connections, and thus not directly attached.

Under this scenario of the relay’s attachment to the duct cable 82, the Examiner asserts that the sensor, which is capable to sense a temperature in the chamber 15 is also capable to sense the temperature of any element in the chamber including the temperature of the duct 82. However, the Examiner’s assertion fails to consider that Smollett discloses that the thermal regulator 66 senses the temperature of the chamber 15, not the temperature of the duct cable 82 or of the sample 72. The disclosed purpose of Smollett is to test the lowered temperature pumpability of hydrocarbon oils. As part of this process, oil is pumped from the reservoir 13 through the duct cable transfer tube 82 that is placed in the chamber 15 having a lower temperature than the temperature zone of reservoir 13. That is, the chamber 15 is maintained at a lower temperature than the reservoir, at a temperature differential that may represent the maximum expected temperature drop over a relatively short period of time in the field, such as an overnight temperature drop. See column 1, line 62 – column 2, line 23.

One of ordinary skill in the art at the time of the invention would not have been motivated to attach the sensor of the thermal regulator switch directly to the duct cable 82 because the sensor would not work for its intended purpose of taking the temperature of the chamber.

The purpose of the thermal regulator switch 66 is to cause the solenoid 63 to change the position of the valve 60 to connect the duct 50 with the bypass duct 55 based on a comparison between the measured atmospheric temperature in the chamber and a threshold temperature. See column 3, lines 38-57. If the temperature sensor of Smollett were extended to directly attach to the cable 82 as asserted by the Examiner for direct attachment, the sensor would not work to accurately measure the chilled air temperature in the chamber 15, because it would be measuring an artificially high temperature indicative of the temperature of the duct cable, which would be higher than the chilled atmospheric temperature of the chamber. Therefore, the thermal regulator switch 66 would not work to switch the valve 60 based on a comparison between the chamber temperature and a threshold temperature because the sensor's reading of the chamber's atmosphere would be raised by the temperature of the cable 82, disabling the use of a thermal regulator switch 66 as intended due to the artificially high temperature read of the sensor attached to the cable.

Accordingly, again it would not have made any technical sense to directly attach the relay 69 – which does not represent the claimed data storage – to the duct cable 82, which is asserted by the Examiner as the claimed sample chamber. Smollett clearly sets forth that during the testing, the duct cable 82 is providing for heat exchange with the cooler chamber 15. Applicants respectfully submit that there is no direct attachment or suggestion for direct attachment between

a sample chamber and a data storage device as recited in the independent claims.

Regarding the feature of the sample chamber being attached to the data storage device in a flexible and movably hanging manner, the Examiner asserts that the duct cable 82 being coiled is flexible and that the data storage device 69 is connected to the duct cable through fluid by flexible electric cable 68. The Examiner's assertions are respectfully traversed.

Applicants respectfully submit that the relay 69 is not directly connected to the duct cable 82. In addition, Smollett does not disclose its electric cables 68 as being flexible. As the sample chamber of Smollett is not directly attached to the relay 69, or to any data storage, a flexible and movably hanging attachment cannot be disclosed or suggested by Smollett.

Moreover, Applicants respectfully submit that the Examiner is not provided a prima facie case of obviousness for rejecting Claims 1-13, 15-19 and 20 under 35 U.S.C. §103(a). In particular, regarding the above-identified claims, the Examiner has not provided the differences between the prior art and the claims at issue, has not discussed the level of ordinary skill in the pertinent art, and has not set forth any consideration of objective evidence present in the application indicating obviousness or non-obviousness as set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). In fact, the Examiner has not mentioned the factual inquiry set forth in *Graham v. John Deere Co.* until a separate discussion of Claim 14 as discussed under separate rejection below.

Accordingly, for at least the reasons set forth above, Applicants respectfully submit that Smollett does not disclose at least one data storage adapted to store a plurality of data, at least one sample chamber being directly attached to the at least one data storage device, and at least one sample chamber being attached to the at least one data storage device in a flexible and

movably hanging manner as recited in the independent Claims 1, 12 and 20. Claims 2-12, 13 and 15-19 each depend from one of the independent Claims 1 and 12, and are also believed to be allowable over Smollett for at least the reasons discussed above. Withdrawal of the rejection of the claims under 35 U.S.C. §103(a) is respectfully requested.

Smollett and Takiue

Claim 14 stands rejected under 35 U.S.C. §103(a) over Smollett in view of Takiue (U.S. Patent Publication No. 2002/0007256A1). This rejection is respectfully traversed for at least the reasons set forth below.

The Examiner admits that Smollett does not disclose measured and reference data and asserts that it would have been obvious to modify Smollett in view of the process center 32 of Takiue to obtain the desired analysis of the data. However, assuming, *en arguendo*, that the references could be combined, the combination would not have resulted in the features discussed above that are recited in Claim 12, and missing in Smollett. That is, Takiue does not teach at least one data storage adapted to store a plurality of data, at least one sample chamber being directly attached to the at least one data storage device, and the at least one sample chamber being attached to the at least one data storage device in a flexible and movable hanging manner as recited in independent Claim 12, from which Claim 14 depends. Therefore, Claim 14 is believed to be allowable over the combination of references. Withdrawal of the rejection of Claim 14 under 35 U.S.C. §103(a) is respectfully requested.

**CONCLUSION**

For at least the reasons set forth above, it is respectfully submitted that the above-identified application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are respectfully requested.

Should the Examiner believe that anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below to expedite prosecution of the application.

Respectfully submitted,

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Please charge or credit our  
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Date: May 19, 2010

Signature: 

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